DISCUSSION OF HCFA TELEMEDICINE DEMONSTRATION

Background

The Health Care Financing Administration (HCFA) Office of Research and Demonstrations began what has become the "Medicare Telemedicine Demonstration Project" in 1993, when Iowa (Methodist) Health System received funding for an out-of-cycle research grant application for the evaluation of clinical and educational services delivered to rural hospitals via fiber optic cable. Also in that year, HCFA's Office of Research and Demonstrations (ORD) contracted with the Center for Health Policy Research (CHPR) at the University of Colorado in Denver for a study of the application of telecommunications technologies to health care delivery. The resulting series of 5 papers, completed in 1995, served as a primer for HCFA's examination of telemedicine. The second paper of that series, “Case Studies and Current Status of Telemedicine,” is in Appendix D.

In its general research solicitation for 1994, HCFA received 14 telemedicine related proposals, 4 of which were selected for funding: the East Carolina University project in North Carolina, the Mercy Foundation (Midwest Rural Telemedicine Consortium) project in Iowa, the West Virginia University project, and the University of Michigan/Medical College of Georgia Telemedicine project. These projects, awarded at the end of 1994, plus the earlier award to Iowa Health System, formed the basis for HCFA's Medicare telemedicine demonstration. Initially, it was expected that additional telemedicine sites might be selected through HCFA's 1995 general solicitation, when 8 telemedicine related proposals were submitted. However, budget pressures precluded adding additional sites.

During 1994 and 1995, each of the awarded sites completed developmental work on their projects, including installation of necessary equipment and communication lines, and began delivering telemedicine services on a limited basis. However, reimbursement for such services awaited HCFA implementation of a waiver of Medicare coverage rules which require a face-to-face encounter between patient and practitioner for clinical consultations. Because of the potential cost and policy implications of relaxing this rule, substantial effort was required by HCFA to determine what services to cover and how providers should be compensated. Several options, including modified physician fee schedules, various forms of capitation, and special copayments, were considered. Eventually, both a modified fee schedule and a "bundled payment" approach were selected.

Estimating the potential cost of the demonstration was difficult, because little relevant Medicare data were available and telemedicine services are expected to affect not only consultant referrals, but also hospital admissions and transfers. Telemedicine could save money by avoiding the need to transfer some patients from community hospitals to urban medical centers for speciality care. However, it was estimated that such savings would be

less than the cost of the increased volume of consultation services that telemedicine is expected to cause. Other savings, such as patient transportation or avoided loss of family member income from avoided travel to a distant medical center, were not considered because they would accrue to the patient or family, but not to Medicare. The assumptions involved in the waiver cost estimate will be examined in the demonstration. The demonstration will also consider incentives that the reimbursement policy may give to inappropriately retain patients in community hospitals when they should be transferred; with the goal of developing a payment policy that neither discourages appropriate use nor encourages over-utilization of teleconsultation.

The sites were notified of their approved waiver status in October 1996, and by December, all but one of the 5 waiver awardees had agreed to participate. As of January 1, 1997, all sites, with the exception of Georgia, were operational, and it was expected that an agreement would soon be reached with the Medical College of Georgia regarding their participation in the demonstration.

Because of the recent implementation of the payment portion of the telemedicine demonstration, no data from the demonstration are available for this report.

The Telemedicine Demonstration Project

In the telemedicine project, Medicare will pay providers for teleconsulting services delivered to Medicare beneficiaries at 57 Medicare-certified facilities (53 short term hospitals, a state psychiatric hospital, and 3 rural health clinics) associated with telemedicine projects at East Carolina University in North Carolina, the Midwest Rural Telemedicine Consortium in Iowa; Iowa Health System; West Virginia University and the Medical College of Georgia (See Table 1).

Through the demonstration, HCFA will address concerns that certain populations, primarily persons in rural areas, have limited access to health care specialists, and that recent advances in telecommunications technology can provide low cost access to medical specialists. However, medical services, especially clinical consultations rendered through the use of telecommunications technology, are generally not covered by private third party payers or by Medicare. In the case of Medicare, coverage rules specify that services be provided in accordance with accepted professional standards, which for clinical consultation means a face-to-face encounter between patient and practitioner.

The objectives of HCFA's telemedicine payment demonstration are to assess the feasibility, acceptability, cost, quality and access to services made available through Medicare reimbursement of teleconsultation. The evaluation is being accomplished through a coordinated effort involving evaluation activities run by the demonstration sites themselves as well as a global evaluation by the Center for Health Policy Research

(CHPR) at the University of Colorado in Denver. The evaluation focuses primarily on teleconsultation, rather than applications such as teleradiology, which several demonstration sites are involved in, but which is already generally covered by Medicare. Further, the demonstration only covers teleconsultations between facilities within each of the five telemedicine demonstration projects covered by HCFA's research and demonstration grants.

Under the telemedicine demonstration project, covered medical services include and are limited to consultations involving the use of appropriate inter-active audio/visual technologies in lieu of face-to-face consultations, for CPT-4 evaluation and management (E&M) and consulting codes in the range 99211 through 99263 (codes 99217-19 and 99238-39 are omitted). In the demonstration, a teleconsultation refers to an inter-active session involving a patient and a referring primary care physician (or other provider) at a rural (spoke) site and a medical specialist (consultant) located at a medical center (hub) site. The telemedicine demonstration sites shown in Table 1 are to provide telemedicine services to Medicare beneficiaries during the 3-year period of October 1, 1996, through September 30, 1999.

In the demonstration, HCFA will experiment with alternative fee-for-service payment schemes, including separate payments to providers at each end of the network, as well as a single "bundled payment" to cover both providers and perhaps some administrative costs such as line charges. Physicians, physicians assistants, and nurse practitioners may bill for telemedicine services at the demonstration sites. To protect patients from multiple coinsurance bills for a single teleconsultation, only the consulting medical specialist at the hub site of the teleconsultation will bill for deductibles or coinsurance. Medicare will pay the entire applicable bill for presenting practitioner services at the spoke site. Provider payments in the demonstration are based on the physician fee schedule, with alterations to reflect the relative work and practice expense distribution between the spoke and hub providers, and between the providers and the telemedicine facilities. In the case of bundled payments, it will be necessary to determine who best should receive payment; the spoke site, the hub site, or the facility which "manages" the network.

Since relatively little is known at present about either the process or content of telemedicine service delivery, HCFA has designed the demonstration and subsequent global evaluation to provide information on both the potential utilization and costs associated with telemedicine services and the general characteristics and practice patterns of individual telemedicine programs. Ultimately, the demonstration and global evaluation should provide insight and information to assist HCFA in determining whether telemedicine coverage is warranted and, if so, how to implement cost-effective telemedicine coverage for appropriate medical conditions or circumstances.

Demonstration Payment Methodology

Practitioner (physician, nurse practitioner, or physician assistant) reimbursement under the demonstration is based on the Medicare physician fee schedule for evaluation and management and consulting in the CPT-4 code series covered by the waiver, 99211 through 99263. However, a 50 percent reduction is applied to the "work" component of the fee schedule for the primary care provider (the spoke end of the teleconsultation), reflecting the fact that he or she would already have billed for an initial patient visit prior to initiating the teleconsult. In addition, providers participating in the demonstration will initially be paid under two different scenarios, depending on whether or not the telemedicine demonstration awardee with which they are affiliated has a HCFA or Public Health Service - Health Resource Services Administration (PHS/HRSA) grant.

For telemedicine sites without grant support, practitioners will receive the full practice expense component of the Medicare physician fee schedule, with the understanding that all or some of that payment will go to the facility where the telemedicine studio is located. The demonstration awardee must develop agreements with participating providers to facilitate such payments. The actual amount received by the facility may be more or less than the fee schedule amount, depending on the agreements worked out.

For sites which have an active HCFA or PHS/HRSA telemedicine grant, the practice expense component of the physician fee schedule (for both inpatients and outpatient, at both the hub and the spoke end of the teleconsult) will be reduced to zero and the demonstration awardee will utilize HCFA or PHS/HRSA grant monies as full Federal Medicare payment for the cost of telemedicine facility usage. In all instances, physicians will receive the full malpractice fee component of the fee schedule.

Licensed independent practitioners (e.g., nurse practitioners, and physician assistants) will be reimbursed according to the Medicare physician fee schedule, with the usual adjustments. Health professionals who are employees of the telemedicine facility (rather than independent practitioners) will not be directly compensated under the Medicare fee schedule, rather, their compensation will be considered part of the telemedicine facility cost.

To protect beneficiaries from receiving up to four copayment bills for a single teleconsult (one from each practitioner and one from each facility) beneficiaries will not be billed for coinsurance for telemedicine facility charges during the 3-year demonstration. Also, only consultants (hub physicians) will bill for coinsurance or deductibles required for a telemedicine visit, while the Medicare carrier will pay the full relevant telemedicine fee (including coinsurance) to practitioners at the spoke sites.

Average 1997 reimbursement levels, by code group and practitioner type, are shown below. It is emphasized that these are projected averages, not actual reimbursement levels. They are based on weighted national averages of the geographic adjustments to

the physician fee schedule (evaluation and management codes reflect rural rates, while consultant codes use urban rates), with the averages weighted by the expected frequency for each code from 1994 (non-telemedicine) Medicare claims data. Actual payments will vary by site and code, with adjustments for copayments and deductibles as previously explained.

Provider Payment Matrix and Average Payment With or W/o Grant

Site	Provider	Work	Pract	Malpra	Avg Outpatient Grant	Avg Outpatient No Grant	Avg Inpatient Grant	Avg Inpatient No Grant
Spoke	Physician	50%	100%	100%	$12.97	$26.95	$18.67	$35.86
Spoke	FNP, PA	42.5%	85%	85%	$11.02	$22.91	$15.87	$30.48
Hub	Physician	100%	100%	100%	$69.87	$107.97	$62.41	$94.27
Hub	Resident	50%	100%	100%	$36.72	$74.82	$32.62	$64.48

Beginning in approximately the third year of the demonstration, awardees will participate in negotiations with HCFA to develop a telemedicine facility fee structure based on telemedicine cost center and billing data accumulated during the demonstration, and efficient provider pricing. Efficient provider pricing assumes full or optimal use of telemedicine resources and prudent buying. Also beginning in approximately the third year of the demonstration, a bundled payment scheme will be implemented. Under this scheme, the demonstration awardee or hub facility will receive bundled payments which include 95 percent of the fee schedule based practitioner's fees plus the cost center based facility fees. The 5 percent reduction is similar to the approach HCFA has taken with the average adjusted per capita cost (AAPCC) for managed care plans and reflects the increased flexibility for fund allocation provided by bundled payment. The entity receiving this payment will be responsible for negotiating payment arrangements with telemedicine network hospitals, participating physicians, and other practitioners, using funds from these bundled payments.

An additional option being tested under the demonstration is an incentive program to reduce inpatient hospital transfers. Under this provision, primary care spoke practitioners and (hub) consultant physicians will receive a 20 percent reduction in payment for inpatient telemedicine consultations that subsequently result in an inpatient being transferred from a spoke to a hub hospital.

Table 1: HCFA Telemedicine Demonstration Project Sites

Medical Col of Georgia / Univ of Michigan Project

	City	Name
Hub	Augusta	Medical College of Georgia
Sp	Eastman	Dodge County Hospital
Sp	Swainsboro	Emanuel County Hospital
Sp	Washington	Wills Memorial Hospital
Sp	Warrenton	Tri-County Health System
Sp	Wrightsville	Johnson Co Ctr for Comm Health
Hub	Thomasville	John D Archbold Memorial Hosp
Sp	Quitman	Brooks County Hospital
Sp	Camilla	Mitchell County Hospital
Sp	Cairo	Grady General Hospital
Hub	Waycross	Satilla Regional Med Center
Sp	Baxley	Appling General Hospital
Sp	Alma	Bacon County Hospital
Sp	Folkston	Charlton Memorial Hospital
Hub	Albany	Phoebe Putney Memorial Hosp
Sp	Americus	Sumter Regional Hospital
Sp	Cordele	Crisp Regional Hospital
Sp	Moultrie	Colquitt Regional Medical Ctr
Hub	Savannah	Memorial Medical Center, Inc
Sp	Hinesville	Liberty Memorial Hospital
Sp	Statesboro	Bulloch County Hospital
Sp	Jesup	Wayne Memorial Hospital
Hub	Columbus	The Medical Center
Sp	La Grange	West Georgia Medical Center
Sp	Warm Springs	Meriwether Memorial Hospital
Sp	Cuthbert	Patterson Hospital

Iowa Health System Project

Hub	Des Moines	Iowa Methodist Medical Center
Sp	Fort Dodge	Trinity Regional Hospital
Sp	Jefferson	Greene County Medical Center

KEY: Hub=Hub Site, Sp=Spoke Site

Mercy Foundation Project, Iowa

	City	Name
Hub	Des Moines	Mercy Hospital Medical Center
Sp	Centerville	St Josephs Mercy Hospital
Sp	Webster City	Hamilton County Public Hosp
Sp	Audubon	Audubon County Memorial Hosp
Sp	Bloomfield	Davis County Hospital
Sp	Mt. Ayr	Ringgold County Hospital
Hub	Mason City	North Iowa Mercy Health Center
Sp	New Hampton	St Joseph Community Hospital
Sp	Hampton	Franklin General Hospital
Sp	Algona	Kossuth County Hospital
Sp	Cresco	Howard County Hospital
Sp	Emmetsburg	Palo Alto County Hospital

East Carolina University Project, North Carolina

Hub	Greenville	Pitt County Memorial Hospital
Sp	Windsor	Bertie Memorial Hospital
Sp	Edenton	Chowan Hospital
Sp	Belhaven	Pungo District Hospital
Sp	Ahoskie	Roanoke-Chowan Hospital
Sp	Williamston	Martin General Hospital
Sp	Faison	Goshen Medical Clinic

West Virginia University Project

Hub	Morgantown	West Virginia University Hosp
Sp	Madison	Boone Memorial Hospital
Hub	Charleston	Charleston Area Med Cntr
Sp	Petersburg	Grant Mem Hosp
Sp	Elkins	Davis Memorial Hospital
Sp	Buckhannon	St Joseph Hospital
Sp	Weston	Wm Sharpe Hospital at Weston
Sp	Spencer	Roane General Hospital
Sp	Gassaway	Braxton County Memorial Hosp